

Amendments to the Drawings:

In FIG. 1B, the incorrect, duplicative reference to the sun gear is changed to ring gear.

In FIG. 3, the block “Tb is set” is relabeled S43, and TB is changed to Tb in block S44.

In FIG. 4, the variable AP01 is labeled.

In FIGS. 5-8, the spelling of “petal” is corrected to “pedal.”

In FIG. 7, the labels TV0₁, APO₂ and T₁ are revised to TV01, AP02 and T1.

In FIG. 8, the labels TV0₁ and T₁ are revised to TV01 and T1, and label AP02 is added. Also in FIG. 8, the time points are amended from t11, t12 and t13 to t21, t22 and t23.

Attachments: Seven (7) drawing sheets replacing original sheets 3/10 and 5/10-10/10

REMARKS

In the Office Action dated December 26, 2008, the Examiner objects to claims 1-21 and rejects claims 1-21 under 35 U.S.C. §112, second paragraph. The Examiner rejects claims 1-9, 11-19 and 21 under 35 U.S.C § 102(b). Finally, the Examiner objects to claims 10 and 20, but acknowledges they contain allowable subject matter. With this Amendment, claims 1, 4-11, 13 and 15-21 are amended. Claims 2 and 12 are canceled without prejudice, and no claims are added. After entry of this Amendment, claims 1, 3-11 and 13-21 are pending in the Application. Reconsideration of the Application as amended is respectfully requested.

Applicant has amended the specification to correct several typographical and grammatical errors. Applicant submits that these changes merely conform the corrected portions of the specification to the remainder thereof and the drawing figures as originally filed. Approval of these changes is respectfully requested.

Applicant has also corrected a number of errors in the drawing figures. In FIG. 1B, the incorrect, duplicative reference to the sun gear is changed to ring gear. This change is supported by FIG. 1C and paragraph [0029]. In FIG. 3, the block "Tb is set" is relabeled S43, and TB is changed to Tb in block S44. These changes are supported by paragraph [0050]. In FIG. 4, the variable AP01 is labeled as described in paragraph [0047]. In FIGS. 5-8, the spelling of "petal" is corrected to "pedal." In FIGS. 7 and 8, the labels TV0₁ and T₁ are revised to TV01 and T1; in FIG. 7, the label APO₂ is revised to AP02; and in FIG. 8 the missing label AP02 is added. These changes are supported by the specification at least in paragraph [0054]. Also in FIG. 8, the time points are amended from t11, t12 and t13 to t21, t22 and t23 as described in paragraphs [0057], [0058] and [0061]. Applicant respectfully requests entry of the corrected drawing sheets.

The Examiner objects to claims 1-21 because many of the claims include a phrase similar to "at set forth in one of claim 1" as shown in claim 5. The Examiner requires correction. Applicant has corrected the preamble of claims 5-10 to address the Examiner's concerns.

The Examiner rejects claims 1-21 under 35 U.S.C. §112, second paragraph, stating that the claims are replete with instances of limitations lacking antecedent basis. The

Examiner points to features in each of claims 6, 7 and 10, but states the list is not exhaustive. Applicant has corrected antecedent basis for each of the features noted in claims 6, 7 and 10. Applicant has further reviewed each of the remaining pending claims and has, where appropriate, corrected antecedent basis therein. Namely, Applicant has corrected antecedent basis for elements in each of claims 6-11, 13, 16, 19 and 20. Applicant respectfully submits that claims 1, 3-11 and 13-21 are clear and definite and meet the requirements of 35 U.S.C. §112, second paragraph.

Applicants gratefully acknowledge the indication of allowable subject matter in claims 10 and 20. Applicants have not amended claims 10 and 20 to independent form as they are dependent from allowable independent claims as discussed hereinafter.

The Examiner rejects claims 1-9, 11-19 and 21 under 35 U.S.C § 102(b) as being anticipated by Lasson (US 6,755,266). Independent claim 21 has been amended to include the feature of means for starting the engine by starting a fuel injection a predetermined time after a start of cranking of the engine wherein a time from the start of the cranking to a start of the fuel injection is a lesser of a first delay time calculated based on an amount of pressure on the accelerator pedal and a second delay time calculated based on a rate of the pressure on the accelerator pedal. Accordingly, claim 21 includes the features of claims 10 and 20 that the Examiner appears to consider patentable over Lasson. Applicant respectfully submits that claim 21 as amended is allowable over Lasson.

Claim 1 has been amended to include the feature of claim 2 wherein the hybrid controller determines whether the engine should be started based on the acceleration demand. Consequently, claim 2 has been canceled. Also, claim 1 has been amended to include the feature of claim 5 wherein the hybrid controller starts the engine by starting a fuel injection a predetermined time after the cranking starts, and this feature has been removed from claim 5. Independent claim 11 has similarly been amended to clarify the preamble and to add the feature from claim 12 of determining whether the engine should be started based on the acceleration demand of the driver. As a result, claim 12 has been canceled without prejudice. Claim 11 has also been amended to include the feature of starting the engine after controlling the pressure by starting a fuel injection a predetermined time after cranking starts. A similar feature in dependent claim 15 has been canceled.

Applicant respectfully submits that Lasson fails to teach or suggest all the features of claim 1 and of claim 11 as amended.

Lasson teaches a method of initiating take-off acceleration of a vehicle 10 exclusively using its motor 531, predicting the future demand for a power contribution of its engine 511 during take-off and starting the engine 511 at the time the determination is made of the need for the engine 511 power contribution. (Col. 12, line 60- col. 13, line 1). This start occurs at an engine speed below a resonance speed of the drive train. (Col. 20, ll. 19-20). The method of deciding early starting of the engine 11 during take-off is described with reference to FIGS. 9 and 10. Inputs to the system include the sensed SOC, vehicular velocity and a driver's desired vehicular acceleration based on accelerator position. (Col. 14, ll. 15-18, 26-28). A maximum possible engine 511 power generatable at the sensed vehicle speed is determined, along with the required power from the power train to meet the desired acceleration. (Col. 14, ll. 28-31). Using these values and calibration factors based on velocity and accelerator position, an engine speed control instruction is sent to engine controller 220 of vehicle 10. (Col. 14, ll. 31-42). The actual process for starting engine 511 using engine controller 220 is not described in Lasson.

With respect to amended claims 1 and 11, Applicant submits that the process of actually starting the engine is not described in Lasson, and so Lasson fails to teach or suggest at least the feature of claim 1 wherein the hybrid controller starts the engine by starting a fuel injection a predetermined time after cranking of the engine starts and at least the feature of claim 11 of starting the engine after controlling the pressure by starting a fuel injection a predetermined time after the cranking starts. The section of Lasson the Examiner cites for starting the fuel injection a predetermined time after the cranking starts (that is, col. 8, ll. 23-27) says nothing about the timing of fuel injection with respect to cranking. Lasson merely states that high driver acceleration demand means that ignition and the injection of fuel desirably starts as early as possible. (Col. 12, ll. 57-60).

Accordingly, claim 1 and its dependent claims 3-10 are allowable over Lasson, and claim 11 and its dependent claims 13-20 are also allowable over Lasson.

In addition, there is no teaching or suggestion in Lasson that the value of the SOC is used to determine whether or not the engine should be started during take-off driving.

The SOC in Lasson is merely is in calculating the amount of power needed from the engine. (Col. 14, ll. 11-42, 47-64). Accordingly, claims 4 and 14 are allowable over Lasson for this reason in addition to being allowable based on their dependence from claims 1 and 11, respectively.

Applicant further submits that the Examiner fails to cite any portion of Lasson that teaches the feature of claims 5 and 15 of cranking the engine with a throttle valve opening based on the acceleration demand. This is because, as mentioned above, the process of actually starting of the engine is not described in Lasson. Applicant submits that claims 5 and 15 are allowable over Lasson for this reason in addition to being allowable based on their dependence from claims 1 and 11, respectively.

With respect to claims 6 and 16, the Examiner cites col. 15, ll. 21-23, for teaching control of the pressure of the induction system so that as the acceleration demand decreases, a drop in the pressure of the induction system increases. However, that section merely describes that, during operation of the engine 511, maximizing engine efficiency can occur by reducing engine torque after start-up to a point below the optimized torque curve to a point where the power produced by the engine 511 is substantially equal to the power demanded for driving the vehicle. (Col. 15, ll. 11-20). The reduction occurs by adjusting airflow, fuel flow and/or ignition parameters. It does not describe control to increase a pressure drop in the induction system. Thus, in addition to being allowable based on their respective dependence from claims 1 and 11, claims 6 and 16 are allowable for this reason.

Applicant respectfully submits that there is no basis for the Examiner's position that the features of claims 9 and 19 are described in Lasson. As mentioned above, fuel injection and ignition are expressly described as occurring as fast as operating conditions allow, and nowhere in the specification is the timing of these events discussed with reference to engine cranking. Accordingly, claims 9 and 19 are allowable for this reason in addition to being allowable based on their dependence from claims 1 and 11, respectively.

It is submitted that this Amendment has antecedent basis in the Application as originally filed, including the specification, claims and drawings, and that this Amendment does not add any new subject matter to the Application. Consideration of the Application in view of these comments is requested. It is submitted that the Application is in suitable

condition for allowance; notice of which is requested.

If the Examiner feels that prosecution of the present application can be expedited by way of an Examiner's amendment, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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